

The Effect of Director's Experience on Target Firm's Industry in Acquisitions

Evidence from domestic mergers and acquisitions made by public acquirers in the United States

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Abstract

This paper provides new evidence on the impact of acquiring company's directors' characteristics in mergers and acquisitions. M&A literature has studied ages the effects of different firm-, board- and deal-attributes. However, acquisition literature has more recently been raising interest towards corporate governance's effects. More precisely, the interest has been in personal-specific features, such as experience. My study implies that boards with industry experience on target firm receive lower acquisition announcement returns in non-diversifying transactions. This finding is new to the existing acquisition- and corporate governance related literature.

Keywords:

Corporate governance, Director characteristics, Merger, Acquisition

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1. Introduction

The board of directors has a critical role in firm's strategic decisions (Demb and Neubauer, 1992) which plays important role in the future profitability of the company. Mergers and Acquisitions¹ are seen as one of the biggest investments companies make and they have a critical strategic role in generating profit for the both acquirer² and the target. As acquisitions are important strategic investment decisions, the board's role is highlighted in acquisitions and prior literature has found many board characteristics to affect the acquisition outcome. One of these characteristics is director's industry experience. Director's industry related experience has received rising public's interest as an aftermath of the 2008-2009 financial crisis. As for example, Citigroup³ didn't have any experienced outside directors on their board prior the crisis and stated to be recruiting several industry experienced directors to their board.

The corporate governance literature furthermore has recent years viewed the effect of director experience on the target firm's industry⁴. Related studies have found that in a diversification acquisition, the independent directors and CEO's with experience on the target firm's industry have a positive effect to the acquisition announcement returns (Wang, Xie and Zhu, 2015; Custódio and Metzger, 2013). Other studies, to the best of my knowledge, have found the effect of director's target industry experience to have both positive and negative effects. However, none of these findings are statistically significant and they differ in measurement of the experience.

The primary objective of my thesis is to test whether the acquiring company's director experience on target firm's industry effect on acquisitions outcomes. Furthermore, I talk through the different characteristics of the transactions made by the low- and high-experienced boards. I contribute to the existing corporate governance, and acquisition related literature by providing new evidence of the industry-experience-effects in corporate governance.

¹ Definitions *Merger, Acquisition, Deal and Transaction* are used interchangeably.

² I use definitions *Acquirer, Acquiring company, Acquiring firm* to refer interchangeably to companies listed as acquirer in SDC Mergers and acquisitions database

³ See Eric Dash, "Dean of Harvard Business School May Join Citigroup's Board," New York Times (July 9, 2008).

⁴ I use *Experience, Expertise, Industry experience, Industry expertise* as a definition for director's experience on the target firm's industry unless otherwise specified.

In my thesis, I divide the experience into two different experience effects: the director's board experience and the director's employment experience on the target firm's industry. As I test the performance of the acquisition, my focus is in the short-term performance as the relationship between acquisition and industry expertise is more straightforward. I test the short-term experience-effect with acquisition announcement returns to the acquirer. My finding is that both forms of experiences have negative effect on the announcement returns in non-diversifying acquisitions. I will also include a test for long-term acquisition performance to test if the acquisition increased the company's efficiency or created synergies when it is measured with the change in the acquiring firm's return on assets (ROA) from one fiscal year before announcement to one fiscal year after the announcement. My findings suggest that there is no relationship between both forms of experience and long-term acquisition performance.

The structure of my thesis is the following. Section 2 consists of a review of the related literature regarding the director's role on acquisition in generating announcement returns to the acquirer. After the review, I state my hypotheses. In Section 3, I introduce my sample, data sources and selection criteria. In section 4, I present my variables and methodology regarding the empirical analysis. In section 5, I will present a sub-sample analysis and discuss the differences of transactions and acquirers between low and high experienced boards. Next in section 6. I present my empirical results and will discuss them in section 7. Lastly, in section 8, I conclude my findings.

2. Literature Review and Hypotheses

2.1. Ways the acquirer's board of directors create value in acquisitions

As mentioned earlier, the board of directors play an important role in acquisitions by approving or disapproving the acquisition investment-decisions, and giving valuable advice when executing the acquisition. The board and directors impact the acquisition performance through both monitoring- and advising-channels.

The monitoring-channel affects through independent directors, who monitor the firm's decisions through shareholders point-of-view and reduce agency problems between shareholders and management (e.g. Agrawal and Knoeber, 1996; Fama, 1980). In addition, independent director's monitoring prevents managers from making value destroying acquisitions (Byrd and Hickman, 1992). These effects do not limit to only independent directors. Raheja (2005) shows that the inside directors also affect the company's performance through the monitoring-channel as inside directors may understand firm-specific information more deeply lowering information asymmetry allowing the board to monitor more efficiently.

The advising-channel affects through director-specific knowledge and includes both inside and outside directors, as board members are usually picked for having specific expertise (Masulis and Mobbs 2011, Wang, Xie and Zhu, 2015). These director-specific characteristics make advising more valuable to the management, driving them into making better performing acquisitions and create value to the firm's shareholders (Byrd and Hickman, 1992, Masulis and Mobbs 2011, Wang, Xie and Zhu, 2015).

2.2 The effect of directors' industry expertise in acquisitions

The most easily noticeable experience-effect of directors' industry expertise comes through the advising-channel. The directors having relative experience from the industry prevent the shareholders from having value-destroying acquisitions as they share their knowledge and advice the management (Wang, Xie and Zhu, 2015; Byrd and Hickman, 1992). The effect comes also through the monitoring-channel, as a result of decision-making quality by approving or disapproving the acquisition the management has proposed (Bhagat and Black, 1999). They claim the monitoring-effect is harder to seize, because the acquisition decisions, just as other important company decisions, are made in private and thus happen before the possible actual acquisition. The ways industry expertise creates value via these two channels is discussed more in sections 2.4 and 7.

Directors target industry experience has been found to have an effect on the acquisition performance in diversification acquisitions (Wang, Xie and Zhu, 2015). The finding suggests that experienced directors have a positive impact when facing acquisition between industries, as the acquirer is likely to overpay for target firm and this management action destroys shareholder's value (Morck, Shleifer and Vishny, 1990).

As mentioned earlier, other studies have failed to find a statistically significant effect between directors' industry experience (e.g. Field and Mkrtchyan, 2017). However, Custódio and Metzger (2013) show that there is an effect between CEO industry experience and acquisition performance. The value is created through bargain-ability capturing greater proportion of surplus, paying smaller premiums and engaging in value increasing acquisitions. These effects are similar to the effects created director experience can create through advising-channel.

I expect the effect of long-term acquisition performance and industry expertise to be indirect, since the expertise plays a role in the acquisition-process by choosing and executing value adding acquisitions (i.e. valuing the target, operating efficiency benefits and synergies correctly). As mentioned earlier, the directors' role includes many other tasks non-related to acquisitions. The

experienced directors thus can increase long-term performance of the firm also through other ways than acquisition-related, but through the same monitoring- and advising-channels.

2.3 Other board and director characteristics

Besides director experience, related studies have found other director and board characteristics to have an influence in acquisitions announcement returns to the acquirer. Also, prior studies show that acquirer and deal characteristics affect the announcement returns. I introduce these effects in this section and discuss more detailed in section 4.3.

Directors' role has focused in acquisition-related literature on boards and director's characteristics, such as boards independence, directors financial experience and prior acquisition experience (e.g. Byrd and Hickman, 1992; Güner, Malmendier and Tate, 2008; Harford and Schonlau, 2013; Field and Mkrtchyan, 2017). Literature has found that these characteristics affect the acquisition outcomes through both the monitoring- and advising-channels, and the literature aims to increase the knowledge and importance of corporate governance in acquisition performance.

Other than director characteristics, various earlier studies have furthermore proven deal- and acquirer related characteristics to affect the acquisition announcement returns. Acquirer related characteristics known to have an effect in acquisition performance include such characteristic as: acquirer's size (Moeller, Schlingemann and Stulz, 2004), leverage (Maloney, McCormick and Mitchell, 1993) and past performance (Rosen, 2006). Deal related characteristics include: acquisition of public vs. private firms (Capron and Shen, 2007), payment type (e.g. Travlos, 1987), diversifying acquisitions (Morck, Shleifer and Vishny 1990), acquirer's use of financial advisor (Rau, 2000) and deal size (Fuller, Netter and Stegemoller, 2002; Alexandridis, Fuller, Tehaar and Travlos, 2013).

2.4 Hypotheses:

The monitoring-channel can enable directors having relevant industry expertise to create value and prevent bad acquisitions. Directors with industry expertise understand the firm's and industry's unique characteristics more deeply, such as its competitive landscape, problems and opportunities. This helps boards analyse the target firms in more depth and understand the possible benefits, and thus pick targets that create the biggest strategic and operational synergies (Wang, Xie and Zhu 2015). Besides valuing, the better-informed boards having better analysis of the acquisition can also prevent firms from making bad acquisitions or obstruct value destroying management empire-building (Masulis and Mobbs, 2011). Moreover, directors having industry experience can increase the boards cohesiveness through increased boards communication and understanding, and furthermore through the usage of industry specific skills and knowledge improving the board's monitoring efficiency

(Forbes and Milliken, 1999). They claim these to be crucial characteristics in decision-making, thus improvements can prevent the board from approving value-destroying acquisitions.

Directors with industry experience have two ways to possibly create value through advising-channel. First, industry expertise can be seen as a bargaining power, which allows experienced directors to value companies more precisely and lower the information asymmetry (Custódio and Metzger, 2013). The lower information asymmetry comes as experienced directors might possess such information that only industry experts can have and enable boards and managers to have deeper understanding of the target firm (Wang, Xie and Zhu 2015). Second, industry knowledge holding directors can assist managers when making complex deals and provide legal-insight of the industry, thus making better deals and acquisitions.

Based on these possible positive effects of the directors' industry experience I construct my first hypothesis as follows:

H1a) Boards having more directors with industry experience make better performing acquisitions.

Wang, Xie and Zhu (2015) state that besides positive experience effects, experienced directors can also have a negative effect on the firm's acquisition performance. They state that industry experience can alternate the difference between the board and management, as experienced directors may share common industry-networks. This may affect acquisition performance negatively as the board's monitoring weakens and sympathy and emotions are more likely to affect the target picking. This can also excite managers to drive their own interest (e.g. empire-building) and thus increase agency problems. Supporting this network effect, directors having industry experience can be inside directors⁵ having experience through their extensive career. The CEO and management may drive their own interest by appointing inside directors (Adams and Ferrera, 2007; Masulis and Mobbs, 2011). Their studies state that these directors are linked with management and may share interest more in line with the management and CEO than with the shareholders. This weakens the boards monitoring abilities through information asymmetry and increase the likelihood of value-destroying acquisition (Adams and Ferrera, 2007; Masulis and Mobbs, 2011). Also, if many directors possess industry experience, the board may be more homogenous. Prior study has found homogeneity⁶ to make boards work less efficiently and weakening critical review of managements suggestions and

⁵ I refer to *inside directors* as directors having managerial position in the acquiring firm.

⁶ *Homogeneity* in this context refers to low diversity in job, employment, industry and educational characteristics of the board members.

decisions, thus making firms more likely to make value-destroying acquisitions (Forbes and Milliken, 1999).

Industry experience can make directors overconfident regarding their knowledge and overvalue potential synergies and overprice the target firm. Also, Güner, Malmendier and Tate (2008) state directors, who have financial experience, can guide the board and shareholders towards approving value-destroying acquisitions. Similar to this, I expect the same to be possible with directors having industry expertise as it increases their credibility in the eyes of other board members and shareholders in advising the acquisition-related topics.

As industry experience may have negative effects, I construct my alternative hypothesis as follows:

H1b) Boards having more directors with industry experience make more bad performing acquisitions

I measure two different experience-effects: board experience and employment experience. The second hypothesis examines the difference between these two experiences. I expect the effect of employment experience to be stronger, in a positive or negative way, than board experience. I base my argument on the fact that employment experience can be seen more industry specific and more practical. Board experience on the other hand, is not so industry specific and has common tasks regardless of the industry, such as management monitoring and advising, where the industry experience can be an asset, but not necessary. Thus, I state my second hypothesis as follows:

H2) Employment experience has a stronger effect on the acquisition performance than board experience.

3. Sample data

3.1 M&A transactions

I include to my sample all successful domestic M&A-transactions made by publicly listed U.S companies. The timeseries for my transactions is from January 2003 to December 2013, as relevant board data I have available is up to year 2013.

My sample consists of M&A transactions that have a disclosed dollar value and the acquirer is taking over 50% interest of the target company (i.e. the company must hold less than 50% ownership to the target company and over 50% after the transaction).

Also, I require the acquiring company to have board information in the BoardEx North America-database, financial statement information available at Compustat and stock return data available at

CRSP -241 - -41 trading days prior the announcement date and between -1 and 1 around announcement day.

Following Wang, Xie and Zhu (2015) and Field and Mkrtchyan (2017), I exclude transactions where acquiring company's primary SIC-code starts with 6XXX (financial companies) and with 49XX (utilities) as these industries greatly differ from others and are regulated.

Besides acquirer-specific characteristics, similar to Morck, Shleifer and Vishny (1990), I require the deal value to be at least 10% of the acquirer's market value 4 weeks prior the announcement day and to have a minimum value of \$ 1M, as smaller transactions could add noise to my sample.

3.2 Board and director data

Acquirer's board of directors is received from BoardEx North America-database. I search the acquirer's sitting board and the needed board information reported on the fiscal year the acquisition was announced. The time series is the same as in acquisitions, covering from January 2003 to December 2013. The board data is the limiting factor of my time series as the BoardEx-data isn't available for me after 2013.

Given all these conditions, my sample includes 1249 transactions by 841 unique acquirers. Yearly transactions can be found in the Appendix 2

3.3 Director experience

First, I collect each acquiring board's sitting directors' unique ID's and use them to search directors earlier board and employment history available at BoardEx. I consider relevant industry experience to be within 10 years prior the announcement day as industries develop over time and thus older experience might be outdated and not relevant (Wang, Xie and Zhu, 2015). My timeseries extends from January 1993 to December 2013. I collect each director's firms in which he or she has worked or been a director in the past 10-years before the announcement. I identify these companies' historical primary standard industrial classification (SIC) code from Compustat Historical segments-database using CIK-code or Ticker symbol as a company identifier. As private firms' information is limited and requires extensive amounts of research, I complement my data using BoardEx-industry definitions and complement firms' missing industry information by allocating these firms with SIC-code which appears most often in specific BoardEx-industry definition.

Then following earlier similar studies (e.g. Wang et.al. 2015) I construct 2 dummy-variables to measure directors having target firm's industry experience, one for the board experience and the other for employment experience outside the acquiring firm. The board experience variable (B_i) is one, if the director i has been a director in a firm within 10 years, which has the same two first digits of the primary SIC-code as the target company⁷ and otherwise zero. The employment experience variable (E_i) is one, if the director i has been in an employment position in a firm within 10 years, which has the same two first digits of the primary SIC-code as the target company and otherwise zero. If director board and employment history data is not found, I mark the director as having no relevant industry experience.⁸

Second, I construct my two main variables Bex and Eex . I calculate both variables as a fraction of the acquirer board's directors, who have relevant industry board or/and employment experience.

$$Bex: \frac{\sum_{i=1}^D B_i}{D} \quad (1)$$

Where B_i is the board experience variable and D is the number of director's sitting on the acquiring company's board during the acquisition fiscal year. The mean (median) percentage with board experience is 30% (25%).

$$Eex: \frac{\sum_{i=1}^D E_i}{D} \quad (2)$$

Where E_i is the employment experience variable and D is the number of director's sitting on the acquiring company's board during the acquisition fiscal year. The mean (median) percentage with employment experience is 12% (0%).

Following Wang, Xie and Zhu (2015), I include variables *Percentage with board experience x Diversification* ($DBex$) and *Percentage with employment experience x Diversification* ($DEex$) to my model in order to seize the experience effect in diversifying acquisitions.

⁷ Target company's primary SIC-code is received from the SDC Mergers and acquisitions database

Table 1
Descriptive statistics

This table presents the descriptive statistics for a sample of 1249 U.S. domestic M&A transactions announced between 1/2003 and 12/2013 and acquirer's being publicly listed companies. $CAR(-1,1)$ is the cumulative abnormal returns (Fama-French three-factor-model) on acquirer's common stock between the window of $[-1,1]$ trading days relative to the announcement day. The $DROA$ is the change in acquirer's return on assets (EBIT/Total Assets) from one fiscal year before the announcement to one fiscal year after the announcement. The Bex is the percentage of directors having previous board-experience on a company having the same 2-digit primary SIC-code as the target firm in the prior 10 years before the acquisition announcement year. The Ex is the percentage of directors having previous employment-experience on a company having the same 2-digit primary SIC-code as the target firm in the prior 10 years before the acquisition announcement year. $Board\ size$ is the number of directors sitting on the acquirer's board. $Board\ independence$ is the fraction of non-executive directors on the acquirer's board. $Financial\ experience$ is the fraction of independent directors having past CFO or FD role on acquirer's board. $CEO\ duality$, $Public$, $Diversifying$, $Stock$, $Cash$ and $Advisor$ are equal to one, if the CEO is present in the board, the target firm is public, the acquirer and target don't share same first two numbers of their primary SIC-code, the deal is 100% financed with stock, the deal is 100% financed with cash and acquirer uses financial advisor respectively, and otherwise zero. $Relative\ size$ is \$US million deal value divided by the acquirer's market capitalization in \$US million. $BHAR$ is the market adjusted (Fama-French US Market Index) returns on acquirer's common shares $[-241, -41]$ trading days relative to announcement day. $Leverage$ is the acquirer's leverage (Total Debt/Total Assets) one fiscal year previous to the announcement day. $Size$ is the acquirer's market capitalization in \$US million. The samples observations are divided into two different sub-samples based whether the acquirer's Bex and Ex is above or below the median marked as Low Board/Experience and High Board/Experience and High Employment Experience respectively. The *, **, and *** at the end of both High Board Experience and High Employment Experience denote statistical significance at 10%, 5% and 1% levels respectively. The marks denote significance of the differences in means between Low and High Board-Experience and Low and High employment-experience sub-samples respectively. Differences in means are based on a t -test.

	1. All				2. Low Board Experience				3. High Board Experience				5. Low Employment experience				6. High employment experience			
	N	Mean	Median	St.Dev.	N	Mean	Median	St.dev	N	Mean	Median	St.dev	N	Mean	Median	St.dev	N	Mean	Median	St.dev
<i>Performance</i>																				
$Car\ [-1,1]$	1249	0.025	0.013	0.146	666	0.035	0.015	0.181	583	0.013 ***	0.010	0.089	654	0.035	0.015	0.183	595	0.014 ***	0.009	0.087
DROA	1130	-0.013	-0.010	0.150	610	-0.015	-0.007	0.119	520	-0.010	-0.014	0.179	597	-0.016	-0.008	0.135	533	-0.009	-0.012	0.165
<i>% of experience</i>																				
Bex	1249	0.302	0.250	0.303	666	-	-	-	583	0.187 ***	0.143	0.196	654	0.186	0.000	0.261	595	0.429 ***	0.375	0.295
Ex	1249	0.116	0.000	0.167	666	0.053	0.000	0.100												
<i>Control Variables</i>																				
Board size	1249	8.134	8.000	2.099	666	8.167	8.000	2.063	583	8.096	8.000	2.141	654	7.881	8.000	2.067	595	8.412 ***	8.000	2.100
Independence	1249	0.746	0.778	0.134	666	0.748	0.778	0.137	583	0.744	0.778	0.130	654	0.739	0.778	0.138	595	0.754 **	0.778	0.128
Financial experience	1249	0.116	0.110	0.102	666	0.112	0.110	0.098	583	0.119	0.130	0.107	654	0.111	0.110	0.101	595	0.121 *	0.110	0.103
CEO duality	1249	0.619	-	0.486	666	0.644	-	0.479	583	0.590 *	-	0.492	654	0.648	-	0.478	595	0.587 **	-	0.493
Public	1249	0.224	-	0.417	666	0.183	-	0.387	583	0.271 ***	-	0.445	654	0.182	-	0.386	595	0.271 ***	-	0.445
Diversifying	1249	0.332	-	0.471	666	0.515	-	0.500	583	0.123 ***	-	0.329	654	0.476	-	0.500	595	0.175 ***	-	0.380
Stock	1249	0.060	-	0.238	666	0.045	-	0.208	583	0.077 **	-	0.267	654	0.052	-	0.222	595	0.069	-	0.254
Cash	1249	0.345	-	0.476	666	0.330	-	0.471	583	0.362	-	0.481	654	0.343	-	0.475	595	0.348	-	0.477
Advisor	1249	0.531	-	0.499	666	0.494	-	0.500	583	0.573 ***	-	0.495	654	0.451	-	0.498	595	0.618 ***	-	0.486
Relative size	1249	0.565	0.229	4.235	666	0.626	0.236	4.840	583	0.495	0.219	3.417	654	0.620	0.234	4.882	595	0.505	0.222	3.387
BHAR	1249	1.095	1.010	0.480	666	1.097	1.010	0.497	583	1.092	1.010	0.460	654	1.098	1.010	0.485	595	1.091	1.010	0.475
Leverage	1249	0.223	0.170	0.235	666	0.224	0.180	0.230	583	0.220	0.160	0.241	654	0.242	0.190	0.246	595	0.201 ***	0.160	0.220
Size	1249	2833	551	10353	666	2308	432	9730	583	3433 *	708	11000	654	2175	438	9411	595	3556 **	707	11262

4. Methodology:

4.1 Announcement returns

To calculate the market-adjusted returns for the acquirers around the announcement day, I use a factor-model. As a factor-model, I use the Fama French three-factor-model (Fama and French, 1993), which is greatly used in finance-related studies regarding abnormal returns. First, I do cross-sectional OLS regression to estimate the Fama French three-factor-model parameters α_i , β_{MKTi} , β_{SMBi} and β_{HMLi} for each acquirer i daily stock returns over $[-241, -41]$ trading days relative to the announcement day of the acquisition:

$$R_{it} = \alpha_i + \beta_{MKTi}(R_m - R_f)_t + \beta_{SMBi}(SMB)_t + \beta_{HMLi}(HML)_t \quad (3)$$

Where the R_{it} is daily return of the acquirer i primarily traded common stock on trading day t received from CRSP accounting for dividends. Other variable values are received from the Kenneth French's website.⁹ The $(R_m - R_f)$ stands for returns on the market portfolio minus the risk-free return rate, SMB_t is the size factor and HML_t is the value factor.

Next, I calculate the abnormal daily returns around the announcement day for every acquirer i using the estimated parameters from the above regression, where $\hat{\alpha}_i$ is the intercept parameter and $\hat{\beta}_{MKTi}$, $\hat{\beta}_{SMBi}$ and $\hat{\beta}_{HMLi}$ are the estimated slopes for the market abnormal return, size and value respectively.

$$AR_{it} = R_{it} - \hat{\alpha}_i - \hat{\beta}_{MKTi}(R_m - R_f)_t - \hat{\beta}_{SMBi}(SMB)_t - \hat{\beta}_{HMLi}(HML)_t \quad (4)$$

Last, I calculate the cumulative abnormal return (CAR) for the acquirer i between $[-1,1]$ around the acquisition announcement day. The mean $CAR[-1,1]$ of the sample of 1249 transactions is 0.25%.

$$CAR[-1,1] = \sum_{-1}^1 AR_{it} \quad (5)$$

4.2 Change in return on assets

Following Custódio and Metzger (2013) and Field and Mkrtchyan (2017) I calculate the change in return on assets from one fiscal year before the announcement to one fiscal year after the announcement for each acquirer. I calculate the ROA_t for acquirers as following: earnings before interest and taxes (EBIT) divided by total assets of the firm. Then I calculate the change in return on asset as following:

$$\Delta ROA = ROA_{t+1} - ROA_{t-1} \quad (6)$$

⁹ http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html

when ROA_{t-1} is the return on assets one fiscal year before the announcement and ROA_{t+1} is the return on assets one fiscal year after the announcement. The mean change of ROA is -1.3%.

4.3 Control variables

All control variables and definitions are given in the Appendix A. In this section: the control variables, the theories from earlier researches and the expected sign of the effects on acquirer's acquisition announcement returns are discussed.

4.3.1 Acquirer related characteristics

Size: Moeller, Schlingemann and Stulz (2004) found that small acquisitions made by small acquirers had a positive relationship between announcement returns and large acquisitions made by large companies had negative relationship between announcement returns. They indicate that a large firm's negative returns come from both larger premiums and lower synergies. Thus, I expect the size-effect to be negative. Samples mean (median) for *size* is US\$ 2.833 billion (US\$ 0.551 billion)

Leverage: Maloney, McCormick, and Mitchell (1993) argue that acquirers having higher leverage receive higher announcement returns. The leveraged company's higher returns come from reduced agency costs and improved managerial decision making (i.e. managers are more cautious and prevent making value destroying acquisitions). Thus, I expect the effect of leverage to be positive. The mean (median) *Leverage* of the acquiring companies is 22% (17%),

BHAR: Study by Rosen (2006) finds that acquirer's announcement returns are inversely related when they are compared to the acquirer 12-month buy-and-hold abnormal returns (*BHAR*). The sign of the effect is thus unpredictable, as it depends on the acquirer's past performance. The samples mean (median) of *BHAR* is 1.095 (1.010).

Year x Industry-dummy: Harford (2005) shows that companies in the same industries tend to make mergers at the same point of time creating merger waves. Following Custódio and Metzger (2013) I seize these industry and year specific effects using dummy-variables.

4.3.2 Deal-related characteristics

Payment method: M&A literature review by Helblan, Devers, Namara, Carpenter and Davison (2009) show that it is widely studied that cash-financed deals generate better announcement returns than those financed with stock. These better announcement returns are based on the argument that payment type signals possible under- or overvaluations of the acquiring company. Acquirers prefer cash-payments when they assume their firm to be undervalued and with stock when they assume to be overvalued. I control the payment type effect by generating 2 dummy-variables *Cash* and *Stock*.

In the full sample, 34.5% of the transactions were paid 100% with cash and 6% of the transactions were paid 100% with stock.

Public vs. Private targets: Researches state acquirers acquiring private targets gain better announcement returns than those acquiring public targets (Fuller, Netter and Stegemoller, 2002; Helblan, Devers, Namara, Carpenter and Davison, 2009) The effect comes from cross-ownership, as the acquiring firm's shareholders are more likely to also hold the target company's shares when the target is public and thus it would be indifferent how acquisition returns would form between acquirer and the target firms in shareholders point-of-view. Cross-ownership on the other hand is unlikely when the target is private firm, indicating higher returns to the acquiring firm. I control the effects of public vs private target firm with dummy-variable *Public* and expect the effect to be negative. In my sample, 22.4% of the target firms are publicly listed.

Relative size: Fuller, Netter and Stegemoller (2002), find a negative relationship between acquirer returns and the relative size of the target firm, which can be seen equal to the deal value. Thus, I expect the effect to be negative. The mean (median) of the *Relative size* is 56.5% (22.9%).

Financial advisor: Rau (2000) studied relationship between different tier investment banks and acquirer announcement returns. The study focuses in differences between different tier investment banks and announcement returns, indicating that acquirers, who use financial advisors receive better announcement returns. To make my model simpler, I exclude different tier advisors and only construct dummy-variable *Advisor*. In 53.1% of the transactions the acquirer used advisor.

Diversifying acquisition: Morck, Schleifer and Vishny (1990) claim the acquirer's announcement returns to be lower if the acquisition happens between industries as the acquirer is more likely to overpay from the target. Thus, I expect this variable to have negative effect. 33.2% of transactions were diversifying acquisitions.

4.3.3. Board and director characteristics

Board size: Yermack (1996) provides evidence that there is an inverse relationship between board size and firm value. The effect comes through poorer communication and reduced decision-making quality. As decision-making quality and information asymmetry arise, the board is more likely to make a value-destroying acquisition. Thus, I expect the effect of *Board size* to be negative. The rounded average amount of directors sitting on the board and the median of my sample is 8 directors.

Independence: Byrd and Hickman (1992) discover a board's independence to have a non-linear effect in acquirer's announcement returns. They show that the acquirer's number of independent directors has mostly a positive effect on the announcement return, however they state that there can be too little

or too many independent directors, making the effect negative. They emphasize role of the independent directors' monitoring as a way to create value for the announcement returns. Also, Adams and Ferrier (2007) show that emphasizing director independence may have a negative effect as managers are less motivated to share information with board as it might increase their monitoring on managers. Making board's monitoring more inefficient due to the limited information. Therefore, the number of directors can make the board's operating more efficient or less efficient in decision making and in advising, making the firm either less or more exposed to value-destroying acquisitions. As the effect is mostly positive I expect it to have a positive effect in my model. The mean (median) percentage of independent non-executive directors in the board is 74.6% (77.8%).

Directors financial experience: Güner, Malmendier and Tate (2008) studied different effects of independent directors who have financial experience. They find directors having financial experience to be negatively associated with announcement returns. The effect is stronger when the target is private as the valuation of private target is more subjective and more difficult. This may result in directors having financial expertise to guiding the board and shareholders into approval of value-destroying transactions. Thus, I expect my variable to have a negative effect. The samples board's mean (median) percentage of the directors with financial experience is 11.6% (11%).

CEO duality: Following related studies (e.g. Wang, Xie and Zhu, 2015; Field and Mkrtchyan, 2017) I include a *CEO duality* variable in my model. Study by Fahlenbrach, Low and Stulz (2010) find no effect on the announcement returns to the acquirer on the CEO duality, so I expect the effect to be close to zero. CEO is present in the board in 61.9% of my samples acquiring boards.

5. Sub-sample analysis:

5.1 Methodology

See Table 1 descriptive statistics for the whole data and for transactions, where the acquiring firm have low or high board experience and employment experience. I mark firm as having high board experience, if the acquirer's *Bex* is equal or above median (0.25) and as having low if below median. I use the same technique in employment experience and mark firm to have high employment experience if the *Eex* is above median and low if below median. As employment experiences median is zero, I mark boards having any employment experience as high experienced. I execute a t-test to measure the significance of the differences of means between low and high experienced boards

involved in transactions. Through the t-test I create sub-sample analysis, with which I create the following arguments of the differences between transactions having low and high experience¹⁰.

5.2 Arguments

5.2.1 Experienced acquirer receive lower announcement returns

In both board experience and employment experience the mean difference between announcement returns is significantly different from the other (both p -values are <0.01). This implies that boards having more experienced directors may be related negatively to the announcement returns, which would be consistent with alternative hypothesis *H1b*. The difference between both experience's means are around 0.02 and is thus inconsistent with *H2* as the employment experience doesn't have larger difference. However, there is no significant difference between in either sub-samples ΔROA stating that there may not be an effect between target firm's industry experience and long-term performance.

5.2.2 Experienced companies are bigger companies

The difference of mean non-logarithmic *Size* between sub-samples in board experience is (\$US - 1.126 billion) and is fairly significant at 10% level. The difference between employment experience sub-samples is (\$US -1.381 billion) and is quite significant at 5% level. These findings would suggest that bigger companies have more experienced directors. The earlier difference between returns is consistent with this finding as bigger companies tend to have lower announcement returns (Moeller, Schlingemann and Stulz, 2004).

5.2.3 Experienced firms acquire more public companies

For both board- and employment-experience the difference between public targets is significantly different from each other (p -value < 0.01). In both samples, around 18% of the targets of the low experience transactions were public whereas around 27% of the targets were public in high experience transactions. This finding is against hypotheses as acquiring private companies the industry experience would be seen as a valuable asset when valuating company, because it is harder than valuating public companies. Although this can be explained with acquirer's size as Moeller, Schlingemann and Stulz (2004) find that large firms are more likely to acquire public companies than small firms, which has a negative effect on the acquisition returns.

¹⁰ All other control-variables not mentioned here, have failed to have statistically significant differences between sub-samples means

5.2.4 Experienced firms are less likely to diversify

According to the difference of means of both board and employment experience, the high experienced acquirers are less likely to do diversification acquisitions as both differences are statistically significant (p -value < 0.01). This finding can be interpreted that boards have more acquiring company's industry experience than other industries experience and thus have more experience when the firm does within industry acquisitions instead of diversification acquisitions.

5.2.5 Experienced firms use more advisors

The mean difference of usage of advisor in transactions between low and high board experience is quite significant (p -value < 0.01) and is significant between employment experience (p -value < 0.01). These statistical differences argue that financial advisor is more likely to be used when directors have more industry expertise. An explanation consistent with prior studies and other sub-sample findings for the usage of financial advisor would be that advisor is more used in public acquisitions as they are more complex and require more skill and effort (Golubov, Petmezas and Travlos, 2012).

5.2.6 High experienced board possess more experience than low experienced boards in general

The means difference between the other expertise (i.e. board experience in high or low employment experience transactions and vice versa) is statistically significant (p -values $< 0,001$). The differences between experience are big (employment experience in board experience: -0.135 and board experience in employment experience -0.243). These results conclude, that high board experience transactions have almost 14% more employment experience in their boards and high employment experience boards have over 24% more board experience. As one director can possess both experience's, it is no surprise that acquirers having either experience also to have the other experience. Directors can have employment experience and be chosen as a director for firm operating in the same industry due to the employment experience as it is considered as an important director qualification (Masulis and Mobbs 2011; Wang, Xie and Zhu, 2015).

5.2.7 Amount of CEO duality is smaller in the high experienced boards.

The difference of means between high-experienced and low-experienced boards is statistically significant, in both board and employment experience sub-samples the difference of means is significant at 5%-level. The difference between board experience sub-samples is 0.054 and 0.062 in employment experience. This implies that CEO is less likely to sit on a board which is high experienced. This could imply that other directors may possess the needed insight what CEO could

bring to board, such as industry experience. However, the difference is rather small stating that there are no huge differences between low and high experienced boards when compared with CEO duality.

5.3 Other findings

Other, significant at some level, findings are found from sub-samples but not in both. In the board experience, difference in means of stock deals is significant at 5% level stating that high experienced boards are more likely to pay transaction 100% in stock and is consistent with other findings as transactions paid with stock receive lower announcement returns (Helblan, Devers, Namara, Carpenter and Davison, 2009). Significant differences of means in employment experience include number of directors (p-value < 0.01) implying experienced boards to be also bigger, which is consistent findings and prior studies that bigger firms have bigger boards (Coles, Daniel and Naveen, 2008). However, the difference between means (-0.531) is quite small. Also, in the employment experience the difference between board independence is fairly significant (p-value of 0.048), but the difference between means is also small (-0.015).

6. Models

6.1 Main regression-models

To test the hypotheses *H1a* and *H1b* I construct cross-sectional OLS models where I regress the acquirers' announcement returns individually for the both board experience and employment experience variables. All regressions standard errors are adjusted for heteroscedasticity and t-stats are based on them. Also, by regressing both experiences in separate model's *ceteris paribus* I test the hypothesis *H2*.

My main OLS-models are the following:

$$\text{Bex-Model1: } CAR_{ij}[-1,1] = \alpha_i + \beta_{BE}Bex_i + \sum \beta_i X_i + \sum \beta_{ij} Y_{ij} + \sum \beta_i Z_i \quad (6)$$

$$\text{Eex-Model1: } CAR_{ij}[-1,1] = \alpha_i + \beta_{EE}Eex_i + \sum \beta_i X_i + \sum \beta_{ij} Y_{ij} + \sum \beta_i Z_i \quad (7)$$

Where the acquirer's three-day announcement returns are CAR_{ij} the Bex_i and Eex_i are the experience of the target firm's industry explained in section 3.3. The X_i stands for acquirer i specific characteristic control-variables (including the year x industry dummies), The Y_{ij} stands for control variables regarding the deal characteristics between acquirer i and target j and the Z_i are the control variables for board characteristic for the acquirer i , all control variables in each category are explained in section 4.3.

I test the long-term effects and hypotheses *H1a* and *H1b* of the director experience by regressing change in the ROA (ΔROA_i) in models below and definition as explained in section 4.2, with same right-hand variables and their definitions as in my main regression-models. As in earlier models, I regress the experiences separately to test my hypothesis *H2*.

$$\text{Bex-Model1: } \Delta ROA_i = \alpha_i + \beta_{BE} Bex_i + \sum \beta_i X_i + \sum \beta_{ij} Y_{ij} + \sum \beta_i Z_i \quad (8)$$

$$\text{Eex-Model1: } \Delta ROA_i = \alpha_i + \beta_{EE} Eex_i + \sum \beta_i X_i + \sum \beta_{ij} Y_{ij} + \sum \beta_i Z_i \quad (9)$$

I also test, if the effect differs in diversification acquisitions by adding to the board experience regression variable *Board experience x Diversification (DBex)* and the variable *Employment experience x Diversification (DEex)* to the employment experience to the models above. None of the other variables aren't modified or removed.

$$\text{Variable added to the Board-experience models, DBex: } \beta_{BE} (Bex_j \times Div) \quad (10)$$

$$\text{Variable added to the Employment-experience models, DEex: } \beta_{EE} (Eex_j \times Div) \quad (11)$$

6.2 OLS-regressions results:

6.2.1 The effect of director's industry experience on target-firm

The results of my main cross-sectional OLS regressions of the acquirer announcement returns *CAR* $[-1, 1]$ are presented in Table 2. Models and coefficients in Table 2 are defined in equations Appendix A.

Coefficient *Bex* is -0.054 and is economically and statistically significant (p-value < 0.05) in the director board-experience model (Bex-Model1). Coefficient *Bex* suggest that acquirers board experience has a negative effect and adding one standard-deviation of board experience in the acquirer announcement return decreases by 1,3%. This finding is in line with hypothesis *H1b*. A significant effect of director's board experience is new to the literature. However, the sign of the effect is in line with the earlier related studies in which the coefficient wasn't significant (Wang et.al. 2015; Custódio et.al. 2013). In Bex-Model2, variable *DBex* is added to the previous model. The effect of board experience is -0.055 and is slightly increased and is more statistically significant at 1% level. The finding suggest that board experience has a negative effect in within industry acquisition returns for the acquirer and thus support the hypothesis *H1b*. The new variable *DBex* appears to have positive effect on diversifying acquisitions returns, implying boards with experience make better performing diversification acquisitions, however the effect is not statistically significant. The signs of the effects

are in line with Wang, Xie and Zhu (2015), who found significant positive effect of independent director's experience in diversification acquisitions.

Table 2
Director experience and the acquirer's announcement returns

This table test relationship between directors' industry experience and acquisition announcement returns by presenting estimates of the cross-sectional ordinary least square estimation for sample of 1249 U.S. domestic M&A transactions announced between 1/2003 and 12/2013 and acquirer's being publicly listed companies. The dependent variable is the acquirer's three-day cumulative abnormal returns $CAR[-1,1]$ (Fama-French three-factor-model) in percentage points on acquirer's common stock between the window of $[-1,1]$ trading days relative to the announcement day. In Bex-Model1 and Bex-Model2, The *Bex* is the percentage of directors having previous board-experience on a company having the same 2-digit primary SIC-code as the target firm in the prior 10 years before the acquisition announcement year. In Eex-Model1 and Eex-Model2, The *Eex* is the percentage of directors having previous board-experience on a company having the same 2-digit primary SIC-code as the target firm in the prior 10 years before the acquisition announcement year. In Bex-Model2, the *DBex* is the *Bex* times *Diversification*-control variable. In Eex-Model2, the *DEex* is the *Eex* times *Diversification*-control variable. The *, **and *** denote significance at the 10%, 5% and 1% levels respectively for the heteroscedasticity adjusted t-statistics reported in the parentheses. All variable definitions are given in Appendix A.

	Bex-Model1	Eex-Model1	Bex-Model2	Eex-Model2
<i>Director experience</i>				
Bex	-0.054 ** (-2.29)		-0.055 *** (-2.767)	
Eex		-0.050 *** (-2.637)		-0.052 *** (-2.76)
DBex			0.008 (0.203)	
DEex				0.014 (0.193)
<i>Board characteristics</i>				
Board size	-0.013 (-0.729)	-0.014 (-0.768)	-0.013 (-0.707)	-0.013 (-0.734)
Board independence	0.045 (1.142)	0.045 (1.144)	0.045 (1.144)	0.045 (1.124)
CEO duality	-0.002 (-0.200)	-0.002 (-0.265)	-0.002 (-0.196)	-0.002 (-0.25)
<i>Deal characteristics</i>				
Financial experience	-0.049 (-0.796)	-0.044 (-0.705)	-0.049 (-0.810)	-0.044 (-0.707)
Public	-0.040 *** (-3.620)	-0.041 *** (-3.698)	-0.040 *** (-3.582)	-0.041 *** (-3.652)
Diversifying	-0.010 (-1.259)	0.000 (0.025)	-0.011 (-0.930)	-0.001 (-0.054)
Stock	0.016 (0.551)	0.012 (0.418)	0.016 (0.536)	0.012 (0.403)
Cash	0.001 (0.185)	0.001 (0.087)	0.001 (0.174)	0.001 (0.077)

Table 2 continues on the next page

Table 2 continued from the previous page

<i>Acquirer characteristics</i>							
Advisor	0.027 ** (1.970)	0.029 ** (2.051)	0.027 ** (1,981)	0.029 ** (2.022)			
Relative size	0.000 (-0.648)	0.000 (-0.483)	0.000 (-0.663)	0.000 (-0.487)			
BHAR	-0.014 * (-1.745)	-0.015 * (-1.809)	-0.014 * (-1.717)	-0.015 * (-1.750)			
Leverage	0.034 ** (2.150)	0.032 ** (1.990)	0.034 ** (2.135)	0.032 ** (1.982)			
Size	-0.010 *** (-2.628)	-0.010 *** (-2.643)	-0.010 *** (-2.699)	-0.010 *** (-2.655)			
(Intercept)	0.135 *** (3.304)	0.105 ** (3.079)	0.136 *** (3.394)	0.104 *** (3.042)			
Year x Industry dummy	Yes	Yes	Yes	Yes			
N	1249	1249	1249	1249			
R ²	0.123	0.119	0.123	0.119			
F-statistic	1.310	1.260	1.299	1.249			

Next, the first employment-experience model (Eex-Model1) furthermore appears to support the hypothesis *H1b*. The employment experience has a negative effect and it is highly economically and statistically significant (p-value < 0.01) and the coefficient has a value of -0.05. Again, the sign of the coefficient is in line with prior literature (Wang et al. 2015; Custódio et al. 2013). The effect is smaller than in board experience implying the employment-experience having a minor effect compared to the board-experience and therefore is against hypothesis *H2*. Adding variable *DEex* in model Eex-Model2 has similar effect than in the board-experience model. The variable *Eex* stays highly statistically significant at and has a slightly effect (-0.052) than in the earlier model. This finding also supports the hypothesis *H1b*. The employment experience effect in the diversification acquisitions appears to have positive and stronger effect than in the board-experience model supporting the *H2* although the finding isn't reliable as the variable is statistically insignificant.

Considering these findings, I thus reject the hypotheses *H1a* and *H2*.

6.2.2 The impact of the control variables

No other board-characteristics than the experience-variables were found to be statistically significant. The signs of other board-characteristics though seem to have the expected signs being in line with prior literature (e.g. Byrd and Hickman, 1992; Güner et al., 2008).

When it comes to deal specific control-variables, there is a statistically highly significant, economically and statistically, effect (all p-values < 0.01) between acquisitions with public target firm and the acquirer returns. The coefficient's *Public* effect on acquisition returns is negative ranging between -0.04 and -0.041, and is thus consistent with prior studies (Fuller et al., 2002; Helblan, et al., 2009). Also regarding the deal-characteristics there is statistically significant positive effect of having a financial advisor in the announcement returns for the acquirer. The *Advisor* coefficient ranges between 0.027-0.029. As the effect is positive, it is consistent with prior literature (Rau, 2000) regarding advisor, although the measurement of the advisor was simplified. Other deal-characteristics fail to have statistically significant effects, but signs of the coefficients: *Diversification* and *Cash* are in line with prior studies (Morck et al., 1990) and (Helblan et al., 2009) respectively. Other statistically insignificant deal-characteristics seem to have differing signs from what was expected according to the prior researches.

Control-variables regarding the acquirer characteristics, in all four models, the acquirer's *Size* has a negative coefficient having value of -0.01 (when rounded) and all results are statistically significant having p-values < 0.01. This implies a negative effect between the acquirer's size and the acquisition returns to the acquirer. This is in line with prior studies with size and acquisition returns (e.g. Moeller, Schlingemann and Stulz, 2004). Other acquirer variables are also significant at some level. *BHAR* is slightly statistically significant (p-value < 0.1) and has a negative effect. *Leverage* shows positive effect between acquisition announcement returns and is economically and statistically significant (p-value < 0.05). These two acquirer characteristics control-variables signs are also in line with the relevant literature such as Rosen (2006) and Maloney et al. (1993) respectively.

6.3 Long-term performance

The cross-sectional OLS regression models of my post acquisition performance, measured by the change in ROA one year prior the announcement to the ROA one year after the announcement (ΔROA), are presented in Table 3. The long-term performance models and the coefficients are explained in equations (8), (9) and in Appendix A.

6.3.1 Board experience

First board-experience model (Bex-Model1) shows a positive relationship between board experience and change in operating efficiency measured with ΔROA . This would imply that experienced boards do pick their targets with higher synergies and improve the operating efficiency of the firm, however the coefficient isn't significant and thus I find no evidence to support that board experience actually make these positive changes in firms. Expanding this paradigm to the Bex-model2 where the *DBex*

variable is added to the model *ceteris paribus*, it shows similar results. Both coefficients *Bex* and *DBex* have positive signs referring to a positive effect between change in operating efficiency, but as both coefficients are statistically insignificant, I find no support of board experience for both hypotheses *H1a* and *H1b*.

Table 3
Director experience and the acquisition long-term performance

This table test relationship between directors' industry experience and acquisition announcement returns by presenting estimates of the cross-sectional ordinary least square estimation for sample of 1130 transactions announced where U.S. domestic publicly listed companies are as an acquirer between 1/2003 and 12/2013. The dependent variable ΔROA is the change in acquirer's return on assets (EBIT/Total Assets) from one fiscal year before the announcement to one fiscal year after the announcement. In Bex-Model1 and Bex-Model2, The *Bex* is the percentage of directors having previous board-experience on a company having the same 2-digit primary SIC-code as the target firm in the prior 10 years before the acquisition announcement year. In Eex-Model1 and Eex-Model2, The *Eex* is the percentage of directors having previous board-experience on a company having the same 2-digit primary SIC-code as the target firm in the prior 10 years before the acquisition announcement year. In Bex-Model2, the *DBex* is the *Bex* times *Diversification*-control variable. In Eex-Model2, the *DEex* is the *Eex* times *Diversification*-control variable. The *, **and *** denote significance at the 10%, 5% and 1% levels respectively for the heteroscedasticity adjusted t-statistics reported in the parentheses. All variable definitions are given in Appendix A.

	Bex-Model1	Eex-Model1	Bex-Model2	Eex-Model2
Bex	0.008 (0.485)		0.005 (0.279)	
Eex		0.006 (0.142)		-0.011 (-0.261)
DBex			0.015 (0.417)	
DEex				0.139 (1.604)
Board characteristics control	Yes	Yes	Yes	Yes
Deal characteristics control	Yes	Yes	Yes	Yes
Acquirer characteristics control	Yes	Yes	Yes	Yes
Year x Industry dummy	Yes	Yes	Yes	Yes
N	1130	1130	1130	1130
R ²	0.207	0.207	0.207	0.209
F-statistic	2.176	2.175	2.158	2.184

6.3.2 Employment experience

In my first employment-experience model (Eex-model1) similar results arise from the regression. Employment-experience shows a positive effect between the change in return on assets, but no conclusions can be made as the variable is statistically insignificant. In the next Eex-model2, where the *DEex* is added to the model *ceteris paribus*. The Eex-coefficient turns negative, but stays statistically insignificant. However, the added variable *DEex*-coefficient is strongly positive but also not statistically significant, although it is close to statistical significance (p-value 0.109).

These findings suggest that there is no effect between directors' experience with the acquirer's change in return on assets. However, it could be possible that experienced director plays role in the acquirer's future operating performance, but this effect doesn't come through the acquisition itself. This is further discussed in the chapter 7.3.

As there are no statistically significant results all hypotheses are rejected and the findings suggest that there is no effect between director experience and in the long-term acquisition performance.

7. Interpretation of results, issues and robustness

7.1. Firms having experienced boards perform worse in within-industry acquisitions

The most interesting result of my study is that the board- and employment-experience have a negative effect on the acquirer's announcement returns in non-diversifying acquisitions. As argued in the hypothesis *H1b*, the effect may be a sum of effects through both the monitoring- and advising-channels. Most likely effect is ought to come from monitoring-channel from impaired decisions quality through homogeneity, independence of directors and industry networks.

7.1.1 Monitoring channel

As many directors have industry experience, the board becomes more homogenous and may lack of conflicts between management and board. In moderate amounts, these conflicts enable the use of critical and investigative processes which may question the CEO's and management's strategic decisions (Forbes and Milliken 1999). They state that because of these conflicts the management may be required to justify and clarify their decisions and consider alternative solutions, increasing monitoring and decision-making quality. Thus, homogeneous boards may impair decision-making, predisposing the firm to shareholder-value-destroying acquisitions. In addition, experienced boards can be more sympathetic to managerial problems weakening the monitoring and inciting managers to drive their own interests over shareholders e.g. empire-building value-destroying acquisitions (Wang, Xie and Zhu 2015). Experienced boards are better at monitoring CEO actions, but the CEO might intentionally decrease or avoid increasing the monitoring. CEO may trust in his own skills too much or have own incentives and therefore may not share all needed information regarding the acquisition with the board, making boards harder to evaluate the acquisition and decrease decision-quality regarding it (Adams and Ferreira, 2007).

Earlier literature has shown that inside-directors are more likely to be chosen to the board by their specific expertise, such as industry expertise (Masulis and Mobbs 2011, Wang, Xie and Zhu, 2015). Thus, it may be that experienced directors are more likely to be inside directors. Supporting earlier decision-making argument, prior literature finds that inside directors are more likely to be chosen for

their close relationship with CEO than their contribution to the board (Masulis and Mobbs, 2011). This is related to poorer decision-making and monitoring as inside directors are less likely to challenge CEO's opinions, are more supportive to the management's initiatives and may have more common interests with management weakening boards monitoring-quality and driving the firm to make shareholders value-destroying acquisitions.

7.1.2 Advising-channel

Industry experience can have negative effects regarding the valuation of the target company and its synergies. In addition to CEO's experienced directors may also be overconfident of their industry knowledge and overvalue the synergies and the target firm. Earlier discussed emotions and networks may additionally affect experienced directors in advising the target picking. Thus, the firm may not choose the optimal target as experienced directors might have social-ties with the target firm and even possibly be themselves employee or director in the target firm. This argument is supported by Ishii and Xuan (2014), who state social connections between the acquirer and the target have a negative effect on the acquisition returns. Social ties could furthermore explain, why the effect negative effect is only in non-diversification acquisitions, as companies operating in the same industry have more social-ties than companies between industries.

Directors with financial experience can guide the board and shareholders towards approving value-destroying acquisitions (Güner, Malmendier and Tate, 2008), this can also be the case with industry experience as experienced directors may have more credibility and noteworthiness in the acquisition advising-process.

7.2 Robustness

I perform additional cross-sectional OLS-regressions to test the robustness of my main regressions results of the effect of director's industry expertise on acquirer returns.

First, I regress my models acquisition announcement Bex-Model2 and Eex-Model2 for two different sub-samples. The first sub-sample includes acquisitions that are less significant measured by relative size, (Robust Models (1) and (2)). The other sub-sample includes more significant acquisitions measured by relative size and transaction value (Robust Models (3) and (4)). The results are shown in Table 4. The board experience is robust in both sub-samples and show similar results as my main regressions. However, employment experience is less robust, as it stays statistically significant in less significant transactions sub-sample but loses statistical significance in more significant transactions sub-sample. The signs of the experience-effects are in line with original model.

Table 4
Robustness tests

This table tests the robustness of the relationship between directors' industry experience and acquisition announcement returns by presenting estimates of the cross-sectional ordinary least square. In Robust Models 1 and 2 estimates are for the sample of 2919 U.S. domestic M&A transactions announced between 1/2003 and 12/2013 and acquirer's being publicly listed companies. In Robust Models 3 and 4 estimates are for the sample of 734 U.S. domestic M&A transactions announced between 1/2003 and 12/2013 and acquirer's being publicly listed companies. In Robust Models 5 and 6 estimates are for the sample of 1249 U.S. domestic M&A transactions announced between 1/2003 and 12/2013 and acquirer's being publicly listed companies. The dependent variable is the acquirer's three-day cumulative abnormal returns $CAR[-1,1]$ (Fama-French three-factor-model) in percentage points on acquirer's common stock between the window of $[-1,1]$ trading days relative to the announcement day in all Robust Models 1-6. In Robust Models 1-4, the Bex is the percentage of directors having previous board-experience on a company having the same 2-digit primary SIC-code as the target firm in the prior 10 years before the acquisition announcement year. In Robust Models 5 and 6 the Bex is dummy-variable equal to one, if any director possesses previous board-experience on a company having the same 2-digit primary SIC-code as the target firm in the prior 10 years before the acquisition announcement year. In Robust Models 1-4, the Eex is the percentage of directors having previous board-experience on a company having the same 2-digit primary SIC-code as the target firm in the prior 10 years before the acquisition announcement year. In Robust Models 5 and 6 the Eex is dummy-variable equal to one, if any director possesses previous employment-experience on a company having the same 2-digit primary SIC-code as the target firm in the prior 10 years before the acquisition announcement year. In all Robust Models 1-6 the $DBex$ is the Bex times *Diversification*-control variable. Robust Models 1-6 the $DEex$ is the Eex times *Diversification*-control variable. The *, ** and *** denote significance at the 10%, 5% and 1% levels respectively for the heteroscedasticity adjusted t-statistics reported in the parentheses for all Robustness Models 1-6. All variable definitions in Robustness Models 1-6 are given in Appendix A.

	Robust Model (1)	Robust Model (2)	Robust Model (3)	Robust Model (4)	Robust Model (5)	Robust Model (6)
Bex	-0.022 ** (-2.531)		-0.067 *** (-2.917)		-0.055 *** (-2.767)	
Eex		-0.028 ** (-2.443)		-0.025 (-0.935)		-0.052 *** (-2.760)
DBex	0.017 (0.921)		-0.017 (-0.228)		0.008 (0.203)	
DEex		0.048 * (1.670)		-0.012 (-0.106)		0.014 (0.193)
Board characteristics control	Yes	Yes	Yes	Yes	Yes	Yes
Deal characteristics control	Yes	Yes	Yes	Yes	Yes	Yes
Acquirer characteristics control	Yes	Yes	Yes	Yes	Yes	Yes
Year x Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
N	2919	2919	734	734	1249	1249
R ²	0.06	0.060	0.21	0.199	0.123	0.119
F-statistic	1.455	1.445	1.363	1.298	1.299	1.249

Also, Robust Models (5) and (6) test that my model isn't biased by the measurement style, I implement alternative way to measure experience in my main regressions models Bex-Model2 and Eex-Model2. I replace both board and employment experience with dummy-variables, which are equal to one if the board has any board or employment experience depending on the model. Otherwise the model remains the same. The DBex and DEex variables are changed by being one if the acquirer has any experience and does diversification acquisition. The board experiences coefficient *Bex* stays highly statistically significant at 1% level in the Robust Model (5) and the sign stays negative. The *DBex* remains insignificant. The *Eex* coefficient seems to be robust, as it is as well in line with my main models and remains statistically significant in both models at 1% level. The *DEex* remaining insignificant.

7.3 Issues

Endogeneity and omitted-variable bias are typical concerns of the corporate governance and acquisition-related research. Faleye et al. (2012) and Wang et al. (2015), state the possibility that regression can have negative relationship between both board- and employment-experience and acquirer returns, by just capturing some general effects of director quality rather than the impact of specific industry knowledge. I try to exclude this possible bias from my regressions by changing the measurement of the director experience as was discussed in the section 7.2. Furthermore, there may be deal-specific drivers, which affect beyond my control-variables. Custódio et al. (2013) state that these factors may concern synergies, vertical integration synergies and deal anticipation by market.

8. Conclusion

In this thesis, I have tested whether the acquirer's directors' experience on target firm's industry has an effect in acquisition announcement returns in domestic transactions made by publicly listed companies in the United States. I included also test for long-term acquisition performance. I splatted the experience into two different experiences, board-experience and employment-experience, and tested, has either of them an effect. Besides analyzing the *effect* and differences, I furthermore analyzed whether the employment experience has more *significant* effect in the announcement returns and in the long-term acquisition performance.

First, I created my sample by collecting acquirer's directors and their relevant industry experience in the timespan of the study. Then I calculated the abnormal returns for the acquirer over acquisition announcement window. Third, I introduced relevant control variable in order to seize the effect of different characteristics regarding the acquirer, the deal and the board.

Next, I analyzed possible differences in the characteristics of low- and high-experienced boards. I created two sets of sub-samples and compared differences between these. I find that high-experienced boards: receive lower announcement returns, are bigger firms, acquire more public firms, are less likely to diversify, use more financial advisors, are more experienced boards in general and CEO is less likely to sit in the board.

After sub-sample analysis, I regress the announcement returns on the experience-variables and other control-variables. My bachelor's thesis provides new finding to the existing literature implying acquirer's boards, which have experience on the target firm's industry, receive lower announcement returns in non-diversifying acquisitions. Besides this, my findings imply that employment-experience's effect is not more significant than board-experience's. I moreover find that the board's target industry experience does not have an effect in the change of operating performance after the acquisition. Otherwise results are in line with the prior researches on the subject (Wang, Xie and Zhu, 2015; Custódio and Metzger, 2013). My findings suggest that experienced acquirer's boards should question more the managements acquisition proposals and have more critical approach when estimating the possible synergies regarding the acquisition, where the target is closely related to the firm through the same industry.

For further research, the director's expertise could be moreover divided into inside- and independent director's having experience, as I discussed the possible differences in the effects regarding the independence of director's. Thus, this could polish the research questions I raised in my bachelor's thesis by providing more information regarding *how* the director experience effects the acquisition performance. The tests could also be done with many different M&A samples to see whether the effect is universal.

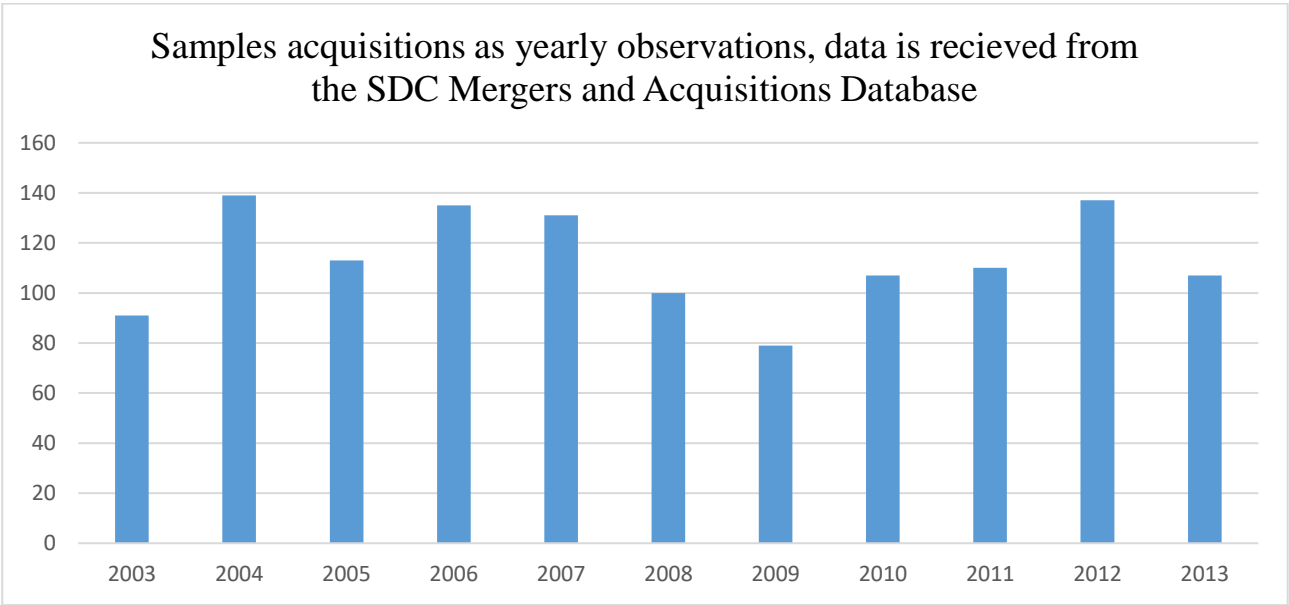
Appendix A.

Variable	Definitions
Panel A: Acquirer characteristics	
<i>Size</i>	The natural logarithm of acquirer's market capitalization 4 weeks prior the announcement day recieved from SDC Mergers and acquisitions database.
<i>Leverage</i>	The ratio of acquirer total debt to total assets at fiscal year previous to the announcement day.
<i>BHAR</i>	The acquirer buy-and-hold abnormal returns over the window of [-241, -41] trading days before the acquisition announcement day, the R_{it} and R_{mt} have same definitions as in equation 1 ¹ .
<i>Industry x year-dummies</i>	The dummy variable equals 1 if the acquisition happens on specific a year on a specific Fama French 12-industry and is otherwise zero.
Panel B: Deal characteristics	
<i>Cash</i>	Is equal to one, when the payment is fully made in cash and otherwise zero.
<i>Stock</i>	Is equal to one, if the payment is fully paid with stock and otherwise zero
<i>Public</i>	Is equal to one, if the target firm is public and otherwise zero.
<i>Relative Size</i>	Is defined as a fraction of the deal value and the acquirer's market capitalization 4 weeks prior the announcement day.
<i>Advisor</i>	Is one if the acquirer has used financial advisor marked in the SDC Mergers and acquisitions database, and otherwise zero.
Panel C: Board characteristics	
<i>Diversifying</i>	The dummy-variable is one, if the acquirer and the target firm's first 2-digits of primary SIC-codes aren't identical, and otherwise zero. The acquirer's and target's primary SIC-codes are recieved from the SDC Mergers and acquisitions database.
<i>Board size</i>	The natural logarithm of the number of director's sitting on the acquirer's board in the fiscal year during the announcement day. Number of directors sitting in acquirer's board is received from the BoardEx North America database
<i>Independence</i>	A fraction of independent directors in the acquirer's board. Amount of NEDs is recieved from BoardEx North America database
<i>Financial experience</i>	The fraction of Non-Executive Directors with past CFO or FD role sitting in the acquirer's board. NEDs with past CFO or FD role is Recieved from BoardEx North America database
<i>CEO duality</i>	Is one, if the CEO is also a board member during the acquisition and otherwise zero. Recieved from BoardEx North America database

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¹¹ The mathematical formulation for the *BHAR* variable. $BHAR_t = \frac{\prod_{-241}^{-41}(1+R_{it})}{\prod_{-241}^{-41}(1+R_{mt})}$

Appendix 2



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